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DATE MAILED: 04/06/2009

NOTICE OF ALLOWANCE AND FEE(S) DUE

EXAMINER 34136 7590 04/06/2009 ROBINSON, HOPE A Pepper Hamilton LLP 400 Berwyn Park PAPER NUMBER ARTHNIT 1652

899 Cassatt Road Berwyn, PA 19312-1183

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO 10/789.222 02/27/2004 Qin Yu UPN0003-100 9718

TITLE OF INVENTION: ANGIOPOIETIN AND FRAGMENTS, MUTANTS, AND ANALOGS THEREOF AND USES OF THE SAME

APPLN, TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional YES \$755 \$300 \$1055 07/06/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

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CURRENT CORRESPOND		Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.								
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10/789,222	02/27/2004		Qin Yu			UPN0003-10		JPN0003-100	9718	
TITLE OF INVENTION	: ANGIOPOIETIN ANI	FRAGMENTS	, MUTA	NTS, AND ANALOC	S TI	IEREOF AND US	ES OF	THE SAME		
APPLN, TYPE	SMALL ENTITY	ISSUE FEE	DUE	PUBLICATION FEE I	OUE	PREV. PAID ISSU	E FEE TOTAL FEE(S) DU			DATE DUE
nonprovisional	YES	\$755		\$300		\$0	\$1055			07/06/2009
EXAM	EXAMINER		П	CLASS-SUBCLASS	S					
ROBINSO		1652		514-012000						
1. Change of correspondence address or indication of "Fee Address" (3 CFR 1.363). CRR 1.363). Change of correspondence address (or Change of Correspondence Address form FTO/SB 122) attached. The Address' indication (or "Fee Address" indication form FTO/SB/47; Rev 03-02 or more recent) attached. Use of a Custom Number is required.				2. For printing on the pattent front page, list (1) the names to up to 3 registered patent attorneys (2) the names of a single firm (having as a member a prejistered attorney or agent) and the names of up to 2 registered pattent attorneys or agents. If no name is listed, no name will be printed.						
ASSIGNEE NAME A PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSI Please check the appropr	less an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, no oletion of this fo	assignee rm is NO	data will appear on t T a substitute for filin (B) RESIDENCE: (6	the page and CITY	atent. If an assign assignment. and STATE OR C	COUNT	RY)		
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NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not b tes Patent and T	e accepte rademark	d from anyone other t Office.	han t	he applicant; a regi	istered a	ittorney or agent; or the	ne as	signee or other party in
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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



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APPLICATION ?	NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/789,222		02/27/2004	Qin Yu	UPN0003-100	9718		
34136	7590	04/06/2009		EXAMINER			
Pepper Han	nilton LLI	P	ROBINSON, HOPE A				
400 Berwyn			ART UNIT	PAPER NUMBER			
899 Cassatt l Berwyn, PA		33	1652 DATE MAILED: 04/06/2009				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/789,222 YU, QIN Notice of Allowability Examiner Art Unit HOPE A ROBINSON 1652 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 3/26/09. The allowed claim(s) is/are 1 and 53. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some* c) ☐ None of the: a) \square All 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. X Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material

/Hope A. Robinson/ Primary Examiner, Art Unit 1652 9. ☐ Other .

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EXAMINER'S AMENDMENT

An Examiner's amendment to the record appears below. Should the changes
and/or additions be unacceptable to applicant, an amendment may be filed as provided
by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be
submitted no later than the payment of the issue fee. The Restriction requirement of
record has been withdrawn in part pertaining to SEQ ID NOs: 13 and 14.

- Authorization of this Examiner's amendment was given in a telephone interview with Mr. Mark DeLuca on March 25, 2009 and March 26, 2009.
- 3. The Claims have been amended as follows:

Please cancel claims 2, 19, 26, 54 and 81-103 without prejudice.

Claim 1(Currently Amended) A pharmaceutical composition comprising a pharmaceutically acceptable carrier, wherein said composition comprises: a therapeutically effective amount of <u>an extracellular matrix (ECM) binding</u> [a fragment] domain of <u>an</u> Ang-1 protein consisting of SEQ ID NO:1 [that binds to the extracellular matrix].

Claim 53 (Currently Amended) A pharmaceutical composition comprising:

a) a pharmaceutically acceptable carrier; and

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b) a therapeutically effective amount of an Ang-1 fragment [with] consisting of SEQ ID.
 NO:1, wherein said fragment has antagonist activity.

REASONS FOR ALLOWANCE

4. The following is an Examiner's statement of reasons for allowance:

The applicant has claimed a pharmaceutical composition comprising a pharmaceutically acceptable carrier, wherein said composition comprises: a therapeutically effective amount of an extracellular matrix (ECM) binding domain of an Ang-1 protein consisting of SEQ ID NO:1. A search of commercial databases did not produce any prior art that suggests or teaches the above claimed invention. The issue of obvious-type double patenting was reviewed with respect to patent number 7.427.594 which claims "a pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of protein that consists of SEQ ID NO:1 or SEQ ID NO:2 ...". The instant structure SEQ ID NO:1 is a 20-mer and SEQ ID NOS:1 and 2 of the patent are both 26-mers. The patent (7,427,594) establishes that the ECM binding domain of an Ang-1 protein consists of a 26-mer and in paragraph 16 of the patented disclosure it is stated that "...the Ang-1 protein is at least 26, at least 50, at least 75, at least 100, at least 500, at least 1000 amino acid residues long" (and SEQ ID NOS: 4, 6 and 8 are cited as examples which consists of 498 and 497 amino acid residues). There is no motivation or suggestion in the patent to make a 20-mer ECM binding domain. Thus, the claimed invention is novel and non-obvious over the prior art.

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5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

Claims 1 and 53 are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hope A. Robinson whose telephone number is 571-272-0957. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nashaat Nashed, can be reached at (571) 272-0934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hope A. Robinson/
Primary Examiner, Art Unit 1652